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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,281	12/28/2001	Han Oh Park	024018-0120	4320

7590 02/20/2002  
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EXAMINER
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KATCHEVES, KONSTANTINA T

ART UNIT	PAPER NUMBER
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1636

DATE MAILED: 02/20/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/029,281

Applicant(s)

PARK ET AL.

Examiner

Konstantina Katcheves

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☒ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### DETAILED ACTION

Claims 1-15 are pending in the instant action.

#### *Priority*

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in the Republic of Korea on 23 October 1999. It is noted, however, that Applicant has not filed a certified copy of the foreign application as required by 35 U.S.C. 119(b).

#### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-15 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of copending Application No. 09/693862 ('862). Although the conflicting claims are not identical, they are not patentably distinct from each other because one of ordinary skill in the art would recognize that the claims of the instant application are obvious variations of the copending '862 application. The instant claims are drawn to a method for obtaining DNA from fish spermatogonium comprising disrupting the cells, adding an alkaline solution of pH8 to pH12 and adding ethanol to precipitate the DNA. The only difference between the instant application and the '862 application is an additional limitation wherein a surface active agent is not used in the process. The instant claims neither call for nor require the use of a surface active agent in the method. Thus, it would have been obvious to one of ordinary skill in the art, in practicing the method exactly as set forth in the instant claims, not to use a surface active agent. Because the claims of the '862 application clearly recite an obvious variation of the instant claims, a provisional obviousness-type double patenting rejection is appropriate.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

*Claim Rejections - 35 USC § 112*

Claim 15 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Factors considered in the rejection of the instant claim may include: the nature of the invention, the state of the prior art and the predictability or unpredictability of the art, the amount of direction or guidance presented in the specification and the presence or absence of working examples, the breadth of the claims and the quantity of experimentation.

Applicant's claim is very broadly drawn to a liquid manure comprising the by-product of the method of isolating DNA from fish spermatogonia by applying to the solution high concentrations of salts, ethanol, and acetic anhydride. Manures are organic materials that fertilize land. The by-product of the instant method would contain nitrogenous waste because of the protamines removed from the DNA by the application of acetic anhydride to the solution. Nitrogen is a crucial component of fertilizers and soil manures. However, Applicant's method requires the use of high-concentrations of salts, more than 1M, to isolate the DNA from the spermatogonia. It is known that soils with high salt concentrations are not suitable for crop growth. Salt-affected soil is not suitable for crop cultivation. Because the by-product after isolation of the DNA would also contain high concentrations of salt, the manure would likely be harmful to plant growth. Moreover, both Davidson et al. (J. of Applied Ecology vol.33 no.6 1996) and Shukla et al. (Plant and Soil Vol.87 no.3 1985) show that it has been recognized in the art that salt-affected soils are adverse to the growth of plants. Only the abstracts of these references have been provided because the entire articles of both Davidson et al. and Shukla et

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al. are not presently available. However, these references will be forwarded to Applicant upon receipt by the examiner.

The disclosure fails to provide any data, working examples or evidence that the by-product of the present method could even be used as a fertilizer and is not harmful to plants. The disclosure teaches that further processing of the by-product is not needed, yet no data suggests that the by-products with its high salt concentrations functions as a manure. Therefore, Applicant is not enabled for a liquid manure comprising the by-product of the isolation of the DNA by the present method because the disclosure fails to show that the by-product can be used as a fertilizer. See specification page 5.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The method of claims 1 and 11 recite a concentration of 1 mol. It appears that Applicant intends to claim a high concentration of salt in the present method. However, 1 mol does not clearly claim a concentration. It would be more appropriate and consistent with the method set forth in the specification if the claims recited 1 M.

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*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Konstantina Katcheves whose telephone number is (703) 305-1999. The examiner can normally be reached on Monday through Friday 7:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Remy Yucel can be reached on (703) 305-1998. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3014 for regular communications and (703) 305-7939 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3388.

Konstantina Katcheves  
February 11, 2002

DAVID GUZO  
PRIMARY EXAMINER  
